PATENT
Attorney Docket No.: UBC1180-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Hancock et al.	Art Unit:	1654
Application No.:	10/661,471	Examiner:	M.A. Audet
Filed:	September 12, 2003	Conf. No.:	7167
Title:	EFFECTORS OF INNATE IMMUNITY DETERMINATION		

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.132

Sir:

I, Oreola Donini, Ph.D., do hereby declare and state that:

1. I presently hold the position of Senior Director of Preclinical Research and Development at Inimex Pharmaceuticals Inc.

2. I hold a Ph.D. in chemistry, focused in small molecule chemistry and discovery granted by Queen's University in Kingston, Ontario.

3. I have worked in the pharmaceutical industry performing preclinical research and development of small molecules, small molecule discovery, cheminformatics, molecular modeling, and chemistry for the past 7 years. Prior to entering the pharmaceutical industry, I was a post-doctoral fellow at the University of California, San Francisco, performing research on lead optimization of MMP ligands and determination of enzymatic mechanisms of action for citrate synthase. A copy of my curriculum vitae is attached as Exhibit C.

4. The University of British Columbia is the assignee of U.S. Application Serial No. 10/661,471, filed September 12, 2003, entitled EFFECTORS OF INNATE IMMUNITY DETERMINATION.

5. U.S. Application Serial No. 10/661,471, filed September 12, 2003, is a continuation-in-part of U.S. Application Serial No. 10/308,905, filed December 2, 2002, currently pending, which claims the benefit under 35 U.S.C. §119(e) of U.S. Application Serial No. 60/336,632, filed December 3, 2001.

6. I am familiar with the contents of the above-identified application, and have reviewed the Office Action dated February 21, 2008.

7. I understand that the Examiner has rejected claims 93, 105, and 108-130 under 35 U.S.C. § 112, first paragraph, alleging that the specification fails to comply with the enablement requirement because peptide SEQ ID NO:7 has allegedly not been shown to have any anti-inflammatory activity, anti-septic activity, or immune system stimulation, alone and absent an antibiotic or granulocyte-macrophage colony stimulating factor (GM-CSF).

8. I also understand the Examiner has found the evidence presented in my previous declaration and Exhibit B thereto inconclusive to show the anti-inflammatory activity, anti-septic activity, or immune system stimulation properties of peptide SEQ ID NO:7 alone.

9. Attached hereto as Exhibit A is a report written by me presenting experimental data showing the efficacy of SEQ ID NO:7 in various infection model studies.

10. Attached hereto as Exhibit B is a report written by me presenting experimental data showing the efficacy of SEQ ID NO:7 in various infection model studies which was submitted as Exhibit B to the declaration submitted with the previously filed response of October 4, 2007.

11. The infection model studies presented in both reports (Exhibits A and B) were undertaken between 2002 and January 2006 as part of the company's ongoing efforts to optimize dosing regimes, and identify other peptides and molecules with similar biological activities for drug development purposes. The reports demonstrate the efficacy of SEQ ID NO:7, when administered *alone*, as having anti-inflammatory activity, anti-sepsis activity, and in stimulating the immune system to confer innate immunity. Results of the infection models presented in the report are as follows:

A) SEQ ID NO:7 demonstrated efficacy in a number of infection models, with multiple pathogens, routes of administration and dosing regimes as shown in Figures 1, 2, 4-9 and 10a of Exhibit A and Figures 1-5 of Exhibit B. Because SEQ ID NO:7 and the other cationic peptides presented in the specification do not function by direct bacterial killing, as evidenced in Table 54 of the specification, the results of the infection models serve as an important demonstration of the ability of the peptide to induce a "protective" host response against a very acute and rapid infection.

B) SEQ ID NO:7 is capable of decreasing inflammation in *in vivo* infection models and acute inflammation models. Data in Figures 3 and 10b of Exhibit A and Figures 8-9 of Exhibit B clearly indicates that in addition to aiding in the resolution of infection, SEQ ID NO:7 and related peptides are simultaneously able to modulate inflammation by reducing proinflammatory cytokines (i.e., TNF-α and IL-6) and preventing an inflammatory cascade.

C) SEQ ID NO:7 is expected to reduce sepsis as an extension of its immunostimulatory and anti-inflammatory activity. For instance, in addition to aiding in the resolution of infection, SEQ ID NO:7 is simultaneously able to

modulate inflammation by substantially reducing the inflammatory cytokine response to infection (i.e., TNF-α levels, a key instigator of inflammation) thus reducing the probability of infections progressing to systemic inflammation (i.e., sepsis). This is confirmed in Figure 10 of Exhibit B in which SEQ ID NO:7 is shown to have upregulated CCL5, a positive prognosticator of sepsis outcome in a clinical setting.

12. In view of the present specification, and given the knowledge in the immunological arts at the time of filing, one skilled in the art would consider SEQ ID NO:7 as exhibiting anti-inflammatory activity, anti-sepsis activity, and conferring innate immunity.

13. I further declare that the statements made herein of knowledge are true and that all statements made on information and belief are to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: Aug 15/08

Oreola Donini

Oreola Donini, Ph.D.